

Multiperiod Inventory Management with Budget Cycles: Rational and Behavioral Decision-Making

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We examine inventory decisions in a multiperiod newsvendor model. In particular, we analyze the impact of budget cycles in a behavioral setting. We derive optimal rational decisions and characterize the behavioral decision-making process using a shortsightedness factor. We test the aforementioned effect in a laboratory environment. We find that subjects reduce order-up-to levels significantly at the end of the current budget cycle, which results in a cyclic pattern during the budget cycle. This indicates that the subjects are shortsighted with respect to future budget cycles. To control for inventory that is carried over from one period to the next, we introduce a starting-inventory factor and find that order-up-to levels increase in the starting inventory.